



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
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APR 07 2014

Mr. Theodore A. Brown, PE  
Chief, Planning and Policy Division  
Directorate of Civil Works,  
Headquarters  
U.S. Army Corps of Engineers  
7701 Telegraph Road  
Alexandria, VA 22315-3860

SUBJECT: Final Integrated General Reevaluation Report II and Supplemental Environmental Impact Statement (SEIS), Jacksonville Harbor, FL. CEQ No. 20140055 & ERP No. COE-E32196-FL

Dear Mr. Brown:

To fulfill EPA's Clean Air Act (CAA) § 309 and National Environmental Policy Act (NEPA) § 102(2)(C) responsibilities, EPA has reviewed the February 2014 SEIS. The proposed action considers deepening the existing authorized 40-foot channel to -47 feet from the mouth of the St. Johns River (river mile 0) upstream to river mile 13. EPA's letter of November 7, 2013, rated the draft SEIS with an EC-2. Provided below are our comments to the COE's response to our November 7, 2013 comments, for the following issues: the ground-water assessment, corrective action plan, ocean disposal of dredged material, and environmental justice.

*Ground-Water Assessment*

EPA notes the COE's additional explanations of the USGS ground-water study in response to our earlier comments. We have great respect for the USGS's expertise and its study. EPA recognizes that the USGS developed cross-sectional models to examine the proposed action's potential effects on saltwater intrusion into the surficial aquifer system under a range of plausible hypothetical conditions, but not to simulate actual projected conditions.<sup>1</sup> We note the USGS statement; *[f]ew data are available concerning the hydraulic characteristics of the water-table unit in Duval County.*<sup>2</sup> EPA believes the uncertainty in cross-sectional modeling an underground system with little hydrologic data for such a complex system may likely be much greater than that of the above ground aquatic-ecosystem modeling of an extensively studied river system. For example, the COE's proposed adaptive management/mitigation accounts for uncertainties associated with water-quality modeling of potential effects to the St. Johns River's aquatic ecosystem, which were based upon models using actual salinity data collected. EPA believes the uncertainties associated with the ground-water modeling in predicting

<sup>1</sup> FSEIS' Appendix A, Attachment A, page 1.

<sup>2</sup> FSEIS' Appendix A, Attachment A – stated on page 7 and again on page 10.

potential impacts to domestic water use have not been similarly addressed with sufficient hydrologic data or adaptive management/mitigation.

Consequently, EPA remains concerned over the proposed action's potential cumulative effect to the region's water supply. Jacksonville, FL, may be one of the largest cities in the world to obtain its entire water supply from ground water.<sup>3</sup> The USGS study estimated the surficial aquifer system currently supplies 8.45 MGD for domestic water use.<sup>4</sup> The USGS also determined the proposed action could lead to saltwater intrusion affecting users of the surficial aquifer system east of Dames Point along the northern shore.<sup>5</sup> We recommend the Final Chief's Report address the potential impacts to the existing source water supply (i.e., the Floridan aquifer) for the Jacksonville water utility should the 8.45 MGD currently being withdrawn from the surficial aquifer have to be supplied by the Floridan aquifer.

The surficial aquifer provides an affordable, supplemental source of water supply and current information suggests that it could provide greater quantities of potable water to meet future demand.<sup>6,7,8</sup> EPA considers impacts to future water-supply sources to be important and reasonably foreseeable. Established to protect drinking-water quality, the Safe Drinking Water Act focuses on all above/underground water resources that could be designated in addition to resources already designated for drinking-water use. Consequently, EPA continues to recommend appropriate adaptive management planning and monitoring in partnership with the St. Johns' River Water Management District, local public water system (e.g., JEA), and the Port of Jacksonville to facilitate continued affordable, sustainable water supply to a population facing projected growth, including the port, and increasing demands for water already subject to cyclical extreme droughts. EPA requests this issue be further addressed in the Final Chief's Report including appropriate mitigation.

### *Corrective Action Plan*

The draft Chief's Report appropriately captures the effects assessment which determined salinity impacts to wetlands at 394.57 acres and submerged aquatic vegetation at 180.5 acres resulting in compensatory mitigation of 39.46 units for wetlands and 18.05 units for submerged aquatic vegetation. The proposed base mitigation plan consists of the purchase of conservation lands amounting to 638 acres of freshwater wetlands, uplands, river shoreline, and salt marsh wetlands with a total cost of \$2,900,000.

<sup>3</sup> Leve, G.W., *Ground Water in Duval and Nassau Counties*, FL (1966) Report of Investigations No. 43, prepared by the USGS in cooperation with the FL Division of Geology, Duval County, and the City of Jacksonville.

<sup>4</sup> Appendix A, Attachment D, p. 5.

<sup>5</sup> FSEIS' Appendix A, Attachment D – *USGS Assessment of the Interconnection between the St. Johns River and the Shallow Aquifer System, East-Central Duval County*, pp.1 & 31.

<sup>6</sup> Leve, G.W., *Ground Water in Duval and Nassau Counties*, FL (1966), pp. 1 & 66, Report of Investigations, No. 43, prepared by the USGS in cooperation with the FL Division of Geology, Duval County, and the City of Jacksonville.

<sup>7</sup> St. Johns River, Florida Water Quality Feasibility Study Phase I Interim Report Volume I Executive Summary Special Publication, p. 60, SJ94-SP12, available at <http://floridaswater.com/technicalreports/pdfs/SP/SJ94-SP12.pdf>

<sup>8</sup> St. Johns River Water Management District District Water Supply Plan 2005 —Fourth Addendum MAY 12, 2009, p. 17, available at <http://floridaswater.com/technicalreports/pdfs/TP/SJ2006-2Addendum4.pdf>.



EPA appreciates the COE's responsiveness to EPA's comments as reflected in the proposed Corrective Action Plan in Appendix E and find it to be well written. EPA wants to play a significant role on the proposed *Corrective Action Team*. The Region's NEPA Program Office will serve as EPA's point of contact to facilitate the appropriate EPA involvement on this team. We note the local sponsor, the Port of Jacksonville will be responsible for a large percent of the costs of the multi-year, multi-parameter monitoring plan. We request the Final Chief's Report address the Port's commitment to meet the future environmental monitoring costs, provide for funding contingencies should the Port be unable to fully bear these costs, and contingencies associated with any construction delays or time extensions, funding shortfalls, etc. Additionally, we believe the monitoring-plan implementation commitment should be at least 10 years after construction completion to allow time for actual effects to be assessed and appropriate corrective actions taken since the models are predictive tools subject to uncertainty. Concern exists among the resource agencies that five years may be insufficient to appropriately capture impacts.<sup>9</sup>

#### *Beneficial Use Options to Ocean Disposal of Dredged Material*

The Dredged Material Management Plan identified numerous potential beneficial use options for dredged material generated for this project including beach restoration for habitat and storm damage reduction, commercial construction, and habitat creation and recreation.<sup>10</sup> Both the FSEIS and Dredged Material Management Plan identify ocean disposal as the recommended alternative for disposal of all 18 million-cubic-yards of new work material. Beneficial use options were not selected based primarily on the accelerated schedule and lack of time to pursue the alternatives and unknowns regarding the required time for agency coordination and permitting. Considering the Federal Government has placed considerable emphasis on the desirability of using dredged material in a beneficial manner, EPA recommends the COE continue to pursue the beneficial use options through the Planning and Design Phase.

As identified in the FSEIS, there is insufficient capacity at the existing offshore dredged material disposal site for the new work material and EPA is in the process of expanding the ODMDS. EPA Region 4 expects to have the designation process completed near the end of 2014 as it does not foresee any particular challenges to delay or prevent the designation of a new or expansion of the existing Jacksonville ODMDS.

#### *Environmental Justice*

For future reference EPA would like to give notice the additional NEPA analysis associated with any future plans for navigation-channel improvement between river miles 13 and 20, should particularly include targeted outreach and investigation to examine and address any potential environmental justice and children's health issues, including possible air-toxics exposure.

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<sup>9</sup> FSEIS Section 4.1 Public & Agency Concerns, p. 104.

<sup>10</sup> Appendix J.

Thank you for the opportunity to review this SEIS. Please provide me with a copy of the final Chief's report and record of decision when issued. If you wish to discuss this matter further, please contact Beth Walls, 404-562-8309 ([walls.beth@epa.gov](mailto:walls.beth@epa.gov)) of my staff.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mueller", with a stylized, cursive script.

Heinz J. Mueller, Chief  
NEPA Program Office  
Region 4, US EPA

CC: Mr. Eric Summa, Chief, Environmental Branch, Jacksonville District Corps of Engineers